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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SMITH, PHILIP ROBERT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/792,237	Applicant(s) FUJITA ET AL.	
	Examiner PHILIP R. SMITH	Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

- [01] A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/24/08 has been entered.

Claim Rejections - 35 U.S.C. 112, Paragraph Two

- [02] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- [03] Claims 7-18 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- [04] With regard to claims 7-18:
- [04a] It is not clear how a "transmission/reception switching signal" can be switched "in accordance with the communication state detected by the detecting device", as recited in the last paragraph of claim 7.
- Firstly, what does it mean to switch something "in accordance with" something else? Electronic devices are programmed devices, and they inherently rely on IF-THEN statements. That is how they are designed, and that is how they should be recited, if recited clearly and concisely. IF [signal A] is determined to be [in whatever state],

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THEN [process B is executed]. The phrase "in accordance with" does not particularly point out and distinctly claim the subject matter.

- More particularly, what does it mean to switch a transmission/reception signal "in accordance with" the detected transmission/reception state? When "T" is detected, does the switching signal change it to "R"? When "R" is subsequently detected, does it switch back to "T"? Does the device exist in order to toggle between "T" and "R" as rapidly as the electronics will allow?

[04b] The "timing for switching communication direction" lacks antecedent basis. Claim 7 establishes a timing for *detecting* the communication direction, and without clarity states that the "transmission/reception switching signal" somehow harmonizes with the result. Is the "switching communication direction" different from the "transmission/reception switching signal"?

[04c] The "timing for switching the antenna" lacks antecedent basis.

[04d] The phrase "synchronizes timing" is unclear. Does this mean that every time the antenna is switched, the communication direction is switched, or that every time the communication direction is switched, the antenna is switched? Or both? Does antenna [A] transmit, and then antenna [B] receives, and then antenna [C] transmits? "Synchronization" is generally understood to mean reliance of multiple elements upon a single timer, so as to coordinate their behavior. What is the single timer in claim 7?

[05] With regard to claim 21: As noted above in paragraph [04a], it is not clear how switching of communication direction can be based on the detected state of the communication direction. This seems to imply the "rapid toggling" effect identified above.

Claim Rejections - 35 USC § 102

- [06] The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- [07] Claims 7-21 are rejected under 35 U.S.C. 102(a) as being anticipated by Fujita (2003/0085994).
- [08] With regard to claims 7-18: Fujita discloses a capsular medical system comprising:
- [08a] a capsular in-body unit ("capsule type endoscope 3," [0074]) having a radio communication device ("antenna 23," [0074]) which is inserted or swallowed to be introduced to the body cavity;
 - [08b] an extracorporeal device ("external unit 5," [0070]) comprising a communication device for [bidirectional] communication with the in-body unit, which is arranged outside the human body;
 - [08c] a plurality of [at least two] antennas connected to the extracorporeal device ("multiple antennas 11a to 11d," [0070]) arranged near the body surface to communicate data to the in-body unit;
 - [08d] a switching device ("antenna switch 45," [0071]) which switches the antennas;
 - [08e] a detecting device ("receiving circuit 33," [0075]) which detects, at the predetermined time interval, a communication state including a transmitting state where the extracorporeal device carries out transmission to the in-body unit, and a receiving state where the extracorporeal device carries out reception from the in-body unit;
 - [08f] wherein the extracorporeal device generates a transmission/reception switching signal for switching the communication direction (sequentially switched antennas "11a, 11b,..., 11d" [0073]).

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[08g] Furthermore, electronic devices such as the extracorporeal device disclosed by Fujita inherently have clocking signals (i.e. timers) which coordinate the activities of the device components. Therefore, all the processes identified above are inherently done "in accordance with" one another, broadly interpreted. All the processes identified above are inherently "synchronized" with one another, broadly interpreted.

[09] With regard to claim 8:

[09a] Fujita further discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[10] With regard to claim 9:

[10a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[11] With regard to claim 10:

[11a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[11b] Fujita discloses that a number n of antennas whose receiving and transmitting states are detected is less than a number N of all of the attached antennas at a time of antenna switching ([0132]).

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[12] With regard to claim 11: Fujita discloses that the antenna whose receiving and transmitting state is checked is determined based on the antenna which currently receives data ("highest radio wave strength" [0075]).

[13] With regard to claim 12:

[13a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[13b] Fujita discloses a storing device which stores the communication state detected by the detecting device ("memory 47," [0072]).

[14] With regard to claim 13:

[14a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[15] With regard to claim 14:

[15a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).

[15b] Fujita discloses that the detecting device controls the antenna selecting device to select the antenna when operation for connection for the transmitting to receiving is not establishable (as noted above).

[16] With regard to claim 15:

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- [16a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [16b] Fujita discloses that the detecting device detects communication states of antennas of a predetermined number less than a number of all of the plurality of all the antennas (since "antennas 11i" are "switched sequentially" [0075], this is necessarily the case; where $n=1$ and $N="i"$).
- [17] With regard to claim 16: Fujita discloses that the antenna whose receiving and transmitting state is checked is determined based on the antenna which currently receives data ([0074]).
- [18] With regard to claim 17:
- [18a] Fujita discloses an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state ("highest radio wave strength" [0075]).
- [18b] Fujita discloses a storing device which stores the communication state detected by the detecting device ("memory 47," [0072]).
- [19] With regard to claim 18: Fujita discloses that the detecting device selects one of the at least two antennas arranged to communicate data to the in-body unit connected to the extracorporeal device, via the switching device, in response to a detected communication state corresponding to movement of the capsular in-body unit in the body cavity. This is the process described in [0075].
- [20] With regard to claims 19-21: Fujita discloses a capsular medical system and method, the system comprising:

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- [20a] a capsular in-body unit ("capsule type endoscope 3," [0074]) having a radio communication device ("antenna 23," [0074]) which is inserted or swallowed to be introduced to the body cavity;
- [20b] an extracorporeal device ("external unit 5," [0070]) comprising a communication device for bidirectional communication with the in-body unit, which is arranged outside the human body;
- [20c] at least two antennas connected to the extracorporeal device ("multiple antennas 11a to 11d," [0070]) arranged near the body surface to communicate data to the in-body unit;
- [20d] a transmission/reception switching section which switches communication direction with the in-body unit (sequentially switched antennas "11a, 11b,..., 11d" [0073]);
- [20e] a timing signal generating section which generates a timing signal (electronic devices inherently have clocking signals);
- [20f] an antenna selecting section which selects an antenna that communicates with the in-body unit among at least the two antennas ("highest radio wave strength" [0075]).
- [20g] As noted above, electronic devices such as the extracorporeal device disclosed by Fujita inherently have clocking signals (i.e. timers) which coordinate the activities of the device components. Therefore, all the processes identified above are inherently "related to" one another in that they are "based on" the timing signal.

Response to Arguments

- [21] Applicant's arguments filed 11/24/08 have been fully considered but they are not persuasive. As noted above, it is maintained that Fujita anticipates the recited subject matter to the extent that it can be understood and interpreted.

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[22] It appears, with regard to the composing elements or the signals generated and utilized, that there are no patentable distinctions between the present application and the Prior Art. The patentable distinctions appear to be in the timing of the signals and the coordination of the composing elements. In order to indicate allowability, narrower terminology is required. Phrases such as "in accordance with," "related to," "based on," and "synchronized" do not adequately present the potentially allowable subject matter in, for example, Figure 3C or Figure 10. These figures are flowcharts which identify a clear pattern: processes are not "based on" or "related to" one another, but are rather executed in a particular order indicated by arrows; the diamonds which indicate decision branches include direct questions with YES or NO answers, and specific paths are taken based on those specific answers. Applicant may present claims which are broader than Figure 3C or Figure 10, but the claims must clearly render the patentable distinctions in order to be allowed. Claims 19 and 20 are clear, but broad. Currently, general references to "synchronization" and "accord" do not distinguish the claims from the Prior Art, which has anticipatory elements and anticipatory signals.

Conclusion

[23] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip R Smith whose telephone number is (571) 272 6087 and whose email address is philip.smith@uspto.gov. The examiner can normally be reached between 9:00am and 5:00pm.

[24] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272 4764.

[25] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained

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from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip R Smith/

Examiner, Art Unit 3739

/Linda C Dvorak/

Supervisory Patent Examiner, Art Unit 3739